

ABSTRACT

The oscillation pulse width is extended in a gas laser apparatus emitting ultraviolet radiation by a high-repetition rate oscillating operation. The gas laser apparatus has a pair of laser discharge electrodes connected to the output terminals of a magnetic pulse compression circuit and disposed in a laser chamber. The pulse width is extended by determining circuit constants so that the period of the oscillating current flowing between the discharge electrodes is shortened and, at the same time, the peak value of the current is increased, whereby the laser gas is continuously excited even during at least one half-cycle subsequent to the first half-cycle of the oscillating current to sustain the laser oscillating operation.